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**Abstract:** Brain research indicates that repetition is of vital importance in the learning process. Repetition is an especially useful tool in the area of music education. The success of repetition can be enhanced by accurate and timely feedback. From "simple repetition" to "repetition with the addition or subtraction of degrees of freedom," there are many forms of repetition that can be successfully adapted to music education. Descriptions of each form of repetition are provided, along with accompanying rehearsal strategies that can be implemented in the classroom. Music teachers can avoid the pitfalls of boredom and mindless repetition by constantly shifting teaching strategies and including new goals and framing techniques. Using these strategies wisely, music educators can provide meaningful, refreshed, and powerful teaching and learning opportunities for both themselves and

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# Strategies for Using Repetition as a Powerful Teaching Tool

**A useful strategy in music education for a wide variety of learners, repetition can be made engaging through creative and improvisatory teaching techniques**

Brain research indicates that repetition is of vital importance in the learning process. Repetition is an especially useful tool in the area of music education. The success of repetition can be enhanced by accurate and timely feedback. From "simple repetition" to "repetition with the addition or subtraction of degrees of freedom," there are many forms of repetition that can be successfully adapted to music education. Descriptions of each form of repetition are provided, along with accompanying rehearsal strategies that can be implemented in the classroom. Music teachers can avoid the pitfalls of boredom and mindless repetition by constantly shifting teaching strategies and including new goals and framing techniques. Using these strategies wisely, music educators can provide meaningful, refreshed, and powerful teaching and learning opportunities for both themselves and their students.

Keywords: band; high school; orchestra; practice; rehearsal; repetition; strategy; chorus

Repetition is one of our most essential learning tools. It is by repetition that we learn to recognize the letters of various alphabets, associate appropriate animal sounds with the correct animal, and memorize names, addresses, phone numbers, multiplication tables, and a host of other information that is fundamental to conceptual learning. Brain research reveals that repetition strengthens neural connections.1 Music education typically emphasizes repetition because of its success in the development and refinement of psychomotor skills.

The most basic type of repetition is that of simple imitation. Imitation is easily observable in infants, who, when exposed to an observable action, begin to imitate the action. Imitation involves the process of trial and error. Early trials of imitation are often inaccurate, but through repetition, the psychomotor skills increase and become more precise. This is especially true in the field of music, where the first attempts to perform on a musical instrument usually bring inferior results. As students strive to imitate correct musical skills through repetition, they learn through personal trial and error what actions produce the best results.

However, simple imitation is not the most effective strategy for learning through repetition. If we want to increase the effectiveness of learning via repetition, feedback is the key to success. Feedback can be either positive or negative. Negative feedback lets students know which options do not work. Positive feedback can focus students on the options that will bring optimum results. Research indicates that we learn by allowing our brain to sort through many options, eliminating those that do not work and choosing those that are most correct.[2] The process of giving feedback to our students when they are engaged in repetitive exercises is therefore of prime importance.

Accuracy and timeliness are critical factors in feedback. If feedback is inaccurate, students repeat and learn bad habits. If feedback is nebulous or too generalized, the students may not receive enough information to choose behaviors that will ultimately improve their performance. Timeliness is critical because the longer the delay, the greater the opportunity for students to disassociate their actions from the feedback. Providing accurate and timely feedback is the best way to increase learning through repetition. This is why some educators believe that "accurate feedback may be the single greatest variable for improving learning."[3]

Some conductors, after having an ensemble play a long section of music, attempt to provide an extensive list of things that need to be fixed in the music just performed. This is a common form of delayed feedback. Delayed feedback separates performance problems from the corrective options that need to be considered. The longer the delay before feedback is given, the less impact there will be on learning. Unless a performer receives the opportunity to isolate a performance problem and immediately experience the solution through performance, the chances for personal improvement are greatly reduced. Learning will be more effective if we can give immediate feedback that is specific to one problem at a time.

## Break It up to Learn It

Chunking is a word often used by educators to describe the process of breaking large bodies of information, such as musical works, into smaller parts. Chunking provides smaller, discrete musical elements to the ensemble that can be repeated, refined, and eventually reassembled back into the original context of the music. Experienced music teachers become adept at chunking and sequencing the reassembly of difficult musical passages as a means of solving complex performance problems. By chunking, we eliminate the delayed feedback inherent in a long list of items to be fixed after the performance of a long passage and instead focus on more useful and immediate feedback. Repeating the two most critical measures of a sixteen-measure phrase will solve more problems than the repetition

of the entire phrase. Likewise, chunking the three troublesome interval leaps in a four-measure phrase will increase rehearsal efficiency and productivity.

To be effective in the process of chunking, the educator must identify the critical elements of the phrase that are challenging for the students, and then create a repetition exercise that focuses on the smallest pattern that addresses the identified problem(s). By focusing on the specific problem(s), the educator will be able to give immediate feedback on the specific elements that are problems, and the students will have the opportunity to immediately experience the solution through performance.

Recognizing that repetition is a powerful teaching tool, one must acknowledge that repetition can also become one of the most significant causes for boredom, frustration, and musical stagnation. Incorrect repetition can create poor habits that are difficult to break, and excessive repetition of any skill can become monotonous, tedious, and boring. Research indicates that simple repetition without purpose does not result in better performance.[4] The brain's natural tendency is to learn from new experiences and then to slowly lessen the response. Brain research indicates that one solution is to use the principle of repetition, "but under the guise of completely different approaches."[5] This clarifies the need for effective educators to become adept at finding new ways to imbue purpose into alternative approaches.

Darren Johnson describes teaching strategies that either simplify the task or "reframe" it so that it can be experienced in a new way. He states that "Reframing techniques are particularly effective because they create a sense of novelty and avoid the sense of boredom that can lead to meaningless repetition."[6] By creating new frameworks for the time-honored strategy of teaching through repetition, we can provide the repetition that is needed to produce improvement while at the same time finding purpose for each reiteration.

The following list is a toolbox of teaching strategies and reframing techniques that have been gleaned from my colleagues and in the course of thirty years of personal experience in music education. When imbued with purpose, each exercise can be used to strengthen and vary learning activities that are based on repetition. Except where noted, each of these strategies presumes that the teacher has already used chunking to select a music excerpt of appropriate length and that students will be given accurate and timely feedback.

### Simple Repetition (Imitation)

The process of modeling music requires students to develop the ability to listen analytically and to refine their ability, through each repetition, to more closely approximate the modeled example. Although some teachers worry that this can lead to rote learning, careful listening and imitation play a critical role in the development of musical perception and achievement.

a. Identify one issue that needs to be improved, and model the solution through singing or playing an instrument.

b. Ask the class to perform the passage and imitate the modeled passage.

## Disguised Repetition (Where Content Does Not Change)

Disguised repetition implies that each teaching strategy will reframe the exercise so that each repetition will appear to be new. The following strategies do not require the instructor to change any portion or element of the passage that is to be repeated, but it does require the instructor to provide accurate and timely feedback so that the purpose for each repetition is clear.

## Performer-Switching Repetition

Repeat a phrase with different students:

a. Everyone with blue eyes

b. Everyone with brown eyes

c. Everyone who has shoelaces

d. Everyone who has a birthday on an even number

e. Everyone on your right/left

## Surprise Repetition

Consider the analogy of opening the refrigerator door, and every time you reopen the door, you find something totally new and unexpected. For each repetition, you must open the refrigerator door for your students and find something new.

a. Change your tone of voice.

b. Add drama to your body motion or conducting.

c. Give a dramatic pause before you give feedback, or ask for the next repetition.

d. Ask students to stand up and perform.

## Call-and-Response Repetition

Call-and-response is a powerful teaching device. Let your modeling speak for you--do not try to explain the "how" and "why."

a. Model the correct performance, and indicate to the students (nonverbally) to repeat the excerpt back to you. Each repetition will invite the students to become more discerning listeners and refined performers.

b. Model the passage incorrectly. Ask the students to identify the incorrect element (e.g., wrong note, wrong rhythm, unfocused tone).

c. Use call-and-response with short verbal feedback or questions (see discovery repetition) after each repetition to guide their listening.

## Competitive Repetition

a. Everyone stands up and repeats the passage. When a student makes a mistake, he or she must sit down. Increase the level of challenge with each repetition by increasing the tempo or changing the dynamic level. Repeat until only a small group remains standing. Do not let this kind of competition go on for too long, or those who have made a mistake will tune out and lose interest in the proceedings.

b. Section versus section, for example, brass versus woodwinds, sopranos versus altos, trumpets versus trombones, or tenors versus baritones.

c. Challenge the class to see which individual/ section can perform the passage correctly at the fastest or slowest tempo.

## Class/Peer Assessment

a. As the tuning note is repeated throughout the ensemble,

* if the player is sharp, students point their index finger downward to show how to resolve the sharpness;

* if the player is flat, students point their index finger upward to show correction;

* if the player is in tune, students make a fist; or

* if students do not know which direction to go, they hold both hands in "palm-up" position.

b. Rate the quality of performance while independent sections or individuals perform repetitions of the same passage. Ratings are given without verbal comment from the students: one finger for best, two fingers for okay, and three fingers for needs improvement.

## Paired Assessment

a. Ask each member of the class to identify an adjacent partner. Partners are designated as "A" or "B." The A group performs the passage while the B group listens. The B partners will have sixty seconds to assess their partners' performance. Talking is permitted only during the assessment interval (no performance).

b. The roles are reversed on the next repetition. B partners perform and A partners will provide the assessment (sixty seconds). Instruct students to give feedback to their partners and, when finished, to return to silence. When the class is quiet, move to the next repetition.

## Inquiry/Discovery Repetition

a. Ask the class for input on how they might perform the musical passage more successfully. Once identified, repeat the passage.

b. Model the passage and then ask students to identify differences between their version and the modeled version. Once differences are identified, repeat the passage.

c. Ask seated students to stand up when they perform the melody (or the countermelody).

d. Have students write one thing that they feel needs to be improved on a blank sheet of paper. Ask random students to share the item that they have written down. Base your next repetition on one of the items that was identified.

## Guided Discovery with Repetition

a. Ask questions that will lead the students to discovery:

* What sections/instruments are singing/playing the melody at this point in the musical composition?

* Which instruments/voices are in unison?

* When does this vocal unison passage add harmony?

* Which instrument has the identical rhythm that is being performed by the snare drum?

b. Ask questions that require students to perform if they know the correct answer:

* Everyone who has the melody at measure xx, please perform it.

* Everyone who has the countermelody at measure xx, please perform it.

## Disguised Repetition (Where Something in the Content Is Altered)

The following teaching strategies are based on the concept that musical excerpts have many levels of complexity. By simplifying the passage, or by bringing fundamental elements of the excerpt into focus, the educator may help students identify and refine the performance problems that are hindering progress. Accordingly, the following teaching strategies involve the manipulation or alteration of content during the repetition exercise in order to simplify or clarify performance issues.

## Conducting Repetition

a. Conduct correct style and tempo first time. With each repetition. change one important musical element through your conducting gestures (e.g., dynamics, tempo, phrasing, style).

b. Have a student conduct the excerpt and ask him or her to change the tempo (power sharing).

## Chunking Repetition

Through the process of dissecting and stacking, the instructor may create repetitions that build increased skill.

a. Dissect a phrase by dividing it into several small pieces. Repeat each segment as a separate exercise, and then recombine the separate pieces once the individual segments have been learned.

b. Learn a pattern by starting with two notes, then three, then four (stacking).

c. Perform the last measure of the phrase, then add the second to last measure, and then continue stacking backward until the entire phrase is complete.

### Rhythmic Repetition

a. Count the rhythm out loud while clapping once for every note, then perform the rhythmic passage on the next repetition.

b. Ask vocalists to speak the words in time with the correct rhythms without trying to sing pitches.

c. Use a tss sound with air between the teeth to indicate each attack and continue the air hiss to show the duration of each note in the rhythmic passage.

d. Articulate the exercise: Have students speak the rhythms with articulation syllables (e.g., ta, too, tee, dah, dat).

### Bopping Repetition

Play or sing only the attack of each note (all notes will be short) while still accounting for the full rhythmic value of each note. This process, often referred to as "bopping" the notes, will clarify individual rhythmic precision and illuminate ensemble precision problems.

a. Perform a chorale by singing/performing only the initial attack of each note.

b. Use a short percussive tss with air between the teeth to signify the attack of each note for a difficult rhythmic passage (air rhythms).

### Association Repetition

Through this method, students learn to associate symbols with sound.

a. Edward S. Lisk gives the following repetition exercise for the development of scale mastery.7

1. Recite the pitch names of the target scale at the tempo of quarter note = 60 (mental).

- 2. Recite the pitch names while simultaneously fingering the associated note at quarter note = 60 (mental-physical).
- 3. Mentally recite silent/internal pitch names while playing instrument at same tempo (mental-physical-auditory).
- 4. Mentally recite silent/internal notes while playing instrument and reading the notation (mental-physical-auditory-visual).

b. Students will develop the ability to perform a crescendo or decrescendo.

1. For an eight-count crescendo, students will count out loud for eight counts ( 1, 2, 3, 4, 5, 6, 7, 8),

speaking each number louder than the preceding number. Reverse the order for decrescendos ( 8, 7, 6,, 1), with each successive number diminishing in volume.

2. Students perform the eight-count crescendo/decrescendo while mentally thinking of the dynamic counting exercise.

c. Students perform evenly spaced groupings of odd-numbered note flourishes (groupings of five or seven).

1. Students recite "1, 2, 3, 4, 5-1" against a steady pulse until the five-note grouping is even and controlled for the appropriate number of counts (i.e., five notes to one beat).

- 2. Students recite the appropriate numbers while fingering the }notes.
- 3. Students play the note grouping while mentally reciting the five-note grouping.

## Power-Sharing Repetition

Power sharing provides students the opportunity to use their creativity to shape the activity while providing additional opportunities for disguised repetition to your students.

a. Put variations of articulations on the board, then ask one student to point to a new articulation for each new repetition.

b. Put the following dynamics on the board: pp, p, mp, mf, f, and ff. Invite a student to stand at the board and point to a new dynamic level for each new repetition. If the passage is of sufficient length, the student can point to a new dynamic level for each measure of the excerpt.

c. Put a crescendo and decrescendo on the board. Have a student show which one to play and follow the length of the symbol to indicate speed of crescendo/decrescendo.

d. Have a student draw a dynamic graph on the board of his or her own design.

Example:

Ask the ensemble to perform the passage while the student follows along the shape of the line with his or her finger. The ensemble will follow the dynamic contour of the line in real time.

e. Place a grading criteria rubric on the board. Ask one student to assess and indicate the level of achievement on each repetition.

## Contrasting Repetition

a. Perform a fast passage in a slow chorale style.

b. Perform a slow legato passage in a fast, marchlike style.

c. Play a slurred passage all tongued or an articulated passage slurred.

## Repetition with Addition or Subtraction of Degrees of Freedom

Music performance requires the simultaneous synthesis of many musical elements. These elements could be called degrees of freedom. The more degrees of freedom that exist in a passage, the more difficult the passage. Conversely, by reducing the degrees of freedom, you may be able to identify and remedy the individual parts of a passage that are not working. Degrees of freedom may include tempo, rhythm, articulations, intervals, dynamics, rubato, and so on.

a. Slow the tempo or eliminate the tempo and conduct one note at a time.

b. Eliminate all interval leaps by reducing the passage to its rhythmic content only. Perform the rhythm on a single pitch.

c. Eliminate all dynamic shapings. Repeat the excerpt at a single dynamic level.

d. Eliminate all articulations, and slur the passage at a slower tempo.

## Looping Repetition

When a short phrase (one to two measures) needs many repetitions, it may be helpful to create a loop of the phrase.

a. Create a loop by designating a short excerpt to be repeated without stopping. Loops can be created that have a two- or four-count rest between the repetitions. The loop continues until the students show improvement or gain mastery.

b. Use looping to solidify articulations or establish accurate large interval leaps or any other discreet item that needs multiple repetitions.

## Looping Repetition with Shifting Focus

a. Add one item to focus on in each new repetition. This requires a two- or four-count rest between each loop. Between each repetition, ask the ensemble to focus on one new element. Students could be asked to articulate a new way, sit up straight, breathe deeply, change the attack, form better vowels, release together on beat x, lift the soft palate, perform with a darker tone, sing or play softer/ louder, and so on.

b. Between each repetition, ask the ensemble to remove one item for each new repetition (see eliminating degrees of freedom).

## Framed Repetition (Setting the Stage for Learning)

One of the most effective ways to enhance repetitive learning is to create a challenge or goal that creates a clear set of expectations for the learning activity. It can also be an invitation that provides a mental hook for students' curiosity.

## Goal Setting: Instructor

Setting goals before a repetition begins will add motivation and purpose to the exercise.

a. Set a goal of repeating a phrase three times without any mistakes.

b. Set a goal of repeating a passage at a slower tempo with all dynamics played correctly (eliminating various degrees of freedom).

## Goal Setting/Power Sharing: Student

a. A student is asked to determine the "tempo goal" for a difficult passage.

b. A student is asked to set a goal to sing or play x number of measures with only one breath.

c. Students set a goal of their choice.

## Context Framing

Context framing is the process of creating a "hook" that allows the students to experience a sense of wonder and invokes curiosity. It provides the emotional invitation to learn.8 Examples might include explaining the historical context of a piece, talking about the life of a composer, sharing anecdotes regarding your personal experiences with the piece, sharing the composer's own written thoughts about the music, or creating an imaginative story line to illustrate the form of the piece. Examples include the following:

* Explain how scale mastery proved to be a critical step in your own personal development.

* Explain the story behind "March to the Scaffold" by Hector Berlioz.

* Prior to playing the Holst Suite No. 2 for Military Band, read (or sing) the texts of each folksong. Discuss how each text might have affected Gustav Holst's setting of the melody.

* Explain how "The Stars and Stripes Forever" by John Phillip Sousa became America's official national march.

## Choose Your Strategy

The foregoing list of rehearsal strategies and reframing techniques is not an exhaustive list. Effective educators will use the strategies best suited to their own personalities, teaching styles, and the developmental levels of their particular ensembles. The outlined strategies are designed to enable educators to use repetition as a fundamental teaching tool in the learning process. Research has demonstrated that "when neural connections are stimulated repeatedly, they strengthen significantly."9 We strengthen these neural connections via repetition by using accurate and immediate feedback. We can avoid the pitfalls of boredom and mindless repetition by constantly shifting our teaching strategies and employing new goals and framing techniques. If we use these strategies wisely, the repetitive nature of our craft can provide meaningful, refreshed, and powerful teaching and learning opportunities for

ourselves and our students.

## NOTES

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